

A Method of Determination of Sodium
Territe, by V. A. Taratuta. UNCL

RUSSIAN, per, Teploenergetika, No 8, 1959,
pp 11-14.

DSIR LLU HTS 1441

(10s. Od.)

Sci - Engr
Apr 60

113035

Determining the Width of a Sampler for Solid
Fuel, by A. I. Beklagin.

RUSSTAN, per, Aviatsionnaya, Vol VI,
No 8, 1959, pp 14-16.

CAIRO

Sol - Fuel
Aug 62

211,489

Elbe Liability to Damage of Batch-Produced
Standard High-Pressure Boilers, by E. G.
Gershtein, et al. UNCL

RUSSIAN, per, Teploenergetika, No 8, 1959,
pp 30-33.

OTS 60-23807
DATA LRU WTS 1442

(7s. 6d.)

116,608

801 - ENGR

116,608

Natural Circulation Under Nonsteady Conditions,
by I. M. Kuznetsov. UDC

RUSSIAN, per, Teploenergetika, No 8, 1959,
pp 89-93.

DAIR MAU RES 1350

(15a. (1.))

Sci. - Engg

Mar 60

111,076

Improvement and Modification of the
Steam Scrubbing Installations and Staged
Evaporation System in TP-170-1 Boilers,
by Yu. R. Yurchakovskiy. UNCL

RUSSIAN, per, Teploenergetika, No 8, 1959,
pp 43-48.

SLA 66-23568
DSIR 1111 RFB 1474

(121. 60.)

Sci - Engr

May 60

116,609

On the Incorrect Interpretation of the Nature
of Phenomena Involved in the Selective Carry-Over
of Billion Into Steam, by Yu. V. Zenkevich. UNCL

RUSSIAN, per, Teplotekhnika, No 8, 1959,
pp 51-53.

DSIR LRU RES 1443

(51.)

Sci - Phys

May 60

116,610

F

AN EXPERIMENTAL DETERMINATION OF SPECIFIC VOLUMES
OF STEAM AT HIGH TEMPERATURES AND PRESSURES, BY
V. A. KIRILLIN, S. A. ULIBIN.

RUSSIAN, PER, TEPLOENERGETIKA, VOL VI, NO 8, 1959,
PP 71-73.

NLL M. 3725

SCI - PHYS

OCT 62

214,184

Analysis of the Accuracy and Composite Table of
Experimental Values of the Specific Volumes of
Water and Water Vapor Obtained in the Moscow
Power Inst, by V. A. Kirillin, S. A. Ulybin, 6 pp.

RUSSIAN, per, Teploenergetika, Vol VI, No 9, 1959,
pp 3-6.

NDP K-199

119,157

Sci -

Jun 60

Vol XII, No 5

Experimental Investigation of the Specific
Heat of Water at 10-500°C Temperatures and
Pressures to 500kg/cm², by A. M. Sirota,
B. K. Mal'tsev, 15 pp.

RUSSIAN, per, Teploenergetika, Vol VI, No 9,
1959, pp 7-15.

MDF S-137

Sci
OTS, Vol III, No 6
Sep 60

126,937

Experimental Investigation of the Heat Conduction
of Steam at High Pressures, by N. B. Vargaftik,
A. A. Tarzimanov, 13 pp.

RUSSIAN, per, ~~Teploenergetika~~, Vol VI, No 9,
1959, pp 15-21.

SLA 61-1200
MDF V-137

Sci

OTS, Vol III, No 6

Sep 60

126,938

Viscosity of Steam at Atmospheric Pressure, by
A. S. Shifrin, 10 pp.

RUSSIAN, per, ~~Teploenergetika~~, Vol VI, No 9,
1959, pp 22-27.

MDF S-142

Sci

OTS, Vol III, No 6

Sep 60

126,936

Die Anwendung der Stufenverdampfung und der
Dampfwasche in Dampferzeugenden Einrichtungen der
Atom-Elektro-Stationen, by T. Ch. Margulov.

RUSSIAN into GERMAN, per, Teploenergetika, No 9,
1959, pp 27-31.

NLL M. 2810

Sci

Feb 62

Thermal Calculation of a Boiler Plant Using
the Calculating Machine "Ural," by M. P.
Simoyu, et al.

RUSSIAN, per, Teploenergetika, No 9, 1959,
pp 32-39.

DSIR LLU RTS 1493

Sci - Engr

Oct 60

128,725

A Study of an Experimental cyclone air-cooled
Combustion Chamber, by B. D. Katsnel'son, A. A.

Shatil'

RUSSIAN, per, Teploenergetika, 1959, No 9,

pp 39-46

NEL REE 2301

(ON LOAN OR PURCHASE)

Sci - Eng

May 67

325,892

Effect of Devices Installed in the Drum Upon
the Amount of Steam Carried Into the Fall Tubes,
by O. M. Baldina, Ts. M. Baytina. UNCL

RUSSIAN, per, Teploenergetika, No 9, 1959,
pp 46-50.

OTS 60-23757
DSIN LRU RTS 1494

(12s. 61.)

Sci. - Engr

May 60

116,611

Some Regular Features in the Carry-Over of
Weak Minerals Acids Into Saturated Steam,
by M. A. Styrikovich, et al. UNCL

RUSSIAN, per, ~~Technicheskaya~~, No 9, 1959,
pp 50-56.

SLA 60-23626
DOYR LIX REG 1453

(15a. 00.)

113,036

Sci - Phys
Apr 60

Protracted Durability of Boiler Steels in
Conditions of Variable Temperature, by I. N.
Laguntsov, L. I. Fedotova.

RUSSIAN, per, Teploenergetika, No 9, 1959;
pp 57-62. 9662626

ATTC MCL-642/1

Sci - Engr
T60-17104
Ref DC-12
Jul 61.

159,286

The Influence of the Throttling of Flow, and of
the Heated Proportion of the Tube Transfer, Upon
the Critical Intensities of Heat Transfer, by V. P.
Doroshchuk, F. F. Frid.

RUSSIAN, TEPLOENERGETIKA, No 9, 1959,

pp 74-79. 909277

STS - 9, MUR
DSIR LLU NIS 1464

Sci - Engg

AEC Tr-4712
121 4012

122,520

Aug 63

(DC-3138).

Metallurgical Achievements in the Development of
High-Temperature (Heat-Resistant) Steels and
Alloys for Gas Turbine Construction, by P. E.
Mikhaylov-Mikhayev, 14 pp.

RUSSIAN, per, Teploenergetika, No 10, 1959, pp 3-8.

JPRS-1038-D

USSR

Sci - Minerals/Metals

Dec 59

102,375

Uvarov, V. V., Chernobrovkin, A. P. and others.
MANUFACTURE OF LARGE GAS TURBINE PLANTS.
[1960] 18p. 4 refs. C.E. Trans. 1599: M1793.

Coder from LC or SLA mi\$2.40, ph\$3.30 61-13122

Trans. of Teploenergetika (USSR) 1959, v. 6 [no. 10]
p. 8-17.

Another translation is available from LC or SLA
mi\$2.70, ph\$4.80 as AEI TP/T-2744.

It is shown that at the present time there are possibilities for the creation of gas turbine plants with outputs up to 400 MW and efficiency of the order of 39 to 40%, and outputs up to 600 MW with efficiency of 38 to 39%.

(Machinery--Engines, IT, v. 5, no. 3)

61-13122

1. Gas turbines--Installation
2. Power plants--Operation
- I. Uvarov, V. V.
- II. Chernobrovkin, A. P.
- III. C.E. Trans-1599
- IV. DSIR L.L.U. M 1793 -
- V. Central Electricity
Generating Board (Gr. Brit.)

142,936

Office of Technical Services

Investigation of Radiant Heat Transfer in the
Furnace of a Natural Gas-Fired Boiler, by A. P.
Kazakovskii, et al.

RUSSIAN, per, Teplenergetika, No 10, 1955,
pp 34-38.

Sci. - Engr

Oct. 60

DSIR LDU RTS 1555

Dist. to W. T. S.

TN 7 E57 No 347

128,857

On the Caloric Properties of Water at Pressures
up to 500 kg/cm^2 and Temperatures up to

300°C . 6 p. by A. M. Sirota, P. E. Belyakova

RUSSIAN, per, Teploenergetika, 1959, Vol VI, No 10,
pp 67-70. 9093136

NDP 8-138

S
Sci
Apr 60
Vol XII, No 3

113,669

Experimental Investigation of the Heat Conduction
of Water, by N. B. Vargafik, O. H. Gleschuk, 7 p.

RUSSIAN, per, Teploenergetika, 1959, Vol VI,
No 10, pp 70-74.

REF V-138

NLL 1.4

113 670

Sci
Apr 60
Vol III, No 1

Experimental Determination of the Specific Volumes
of Water Up to 1200 kg/cm² Pressures, by M. P.
Vukalovich, V. N. Zubarev, 6 pp.

RUSSIAN, per, Topoenergetika, Vol. VI, No 10, 1959,
pp 74-77.

Morris D. Friedman
V-139

119,363

Sci

Jun 60

61-13124

Vukalovich, M. P. and Altunin, V. V.
EXPERIMENTAL INVESTIGATION OF THE p-v-t
RELATIONS OF CARBON DIOXIDE (Eksperimental'-
noye issledovaniye Zavisimosti p-v-t Uglekisloty).
[1960] 13p. 11 refs. (4 figs. 10 tables omitted)
M 1796.

Order from LC or SLA m\$2.40, ph\$3.30 61-13124

Trans. of Teploenergetika (USSR) 1959 [v. 6] no. 11,
p. 58-65.

A new method is described for the experimental in-
vestigation of the p-v-t relations of gases, based on
the use of a nonballast piezometer, and the determi-
nation of the quantity of gas by means of a separable
container filled with an adsorbent. The results are
given of the investigation of the p-v-t relations of
carbon dioxide. (Author)

(Physics-Thermodynamics, TT, v. 5, no. 5)

I. Carbon dioxide--Thermo-
dynamic properties

I. Vukalovich, M. P.

II. Altunin, V. V.

III. DSIR LLU M. 1796

147,101

Office of Technical Services

Generalization, Using Non-Dimensional Parameters,
of the Results of Drop Size Measurements for
Liquids Atomized Through Centrifugal Nozzles, by
Yu F. Dityaikin and L. N. Britanova.
RUSSIAN, per. ~~Teplotekhnika~~, Vol 6, No 11, 1959.
PP 33-36.
NLI 9022.09 (4451)

Sci-Mat
Nov 67

345,386

Abrasion Index of Coal and the Wear Resistance
of Metals Used for Coal Crushing, by N. V.
Sokolov, V. P. Osokin.

RUSSIAN, per, Teploenergetika, No 11, 1959,
pp 37-41.

DSIR LLU RTS 1582

Sci - Engr

Oct 60

130,722

Scaling in Turbine Condensers Reduced by Treating
Cooling Water Magnetically, by N. P. Lepotyskhin.

RUSSIAN, per, Teploenergetika, No 11,
pp 45-47.

DSIR ILC RTS 1583

Sci. - Engr

Oct 60

128,851

Effect of the Salt Content of Boiling
Water on Hydrodynamics During Fubbling,
by L. S. Sterman, et al.

RUSSIAN, Teploenergetika, 1959,

Vol 6, No 11, pp 48-52.

MLL 9022.09 1964 (3632) (On Loan)

Aug 65

287,220

Hydrodynamics of Forced Circulation Boilers,
by A. A. Davidov, B. I. Sheinin.

RUSSIAN, per, Teploenergetika, No 11, 1959,
pp 53-57.

DSIR LLU RT- 1959

Sci - Engr

Oct 60

130,724

Vukalovich, M. P. and Altunin, V. V.
AN EXPERIMENTAL INVESTIGATION OF THE p-v-t
DEPENDENCE OF CARBON DIOXIDE [Eksperimental'-
noye issledovaniye zavisimosti p-v-t Uglekisloty].
[1962] [14]p. 11 refs.

Order from CTS or SLA \$1.60

63-13425

Trans. of Teploenergetika (USSR) 1959, v. 6, no. 11,
p. 58-65.

Another trans. is available from LC or SLA at \$2.40,
ph\$3.30 as 61-13124, DSIR LLUM. 1796 [1960] 13p.

DESCRIPTORS: *Carbon dioxide, Pressure, Volume,
Temperature, Gas analyzers, Adsorbents, Equations
of state.

For abstract see Technical Translations 5: 274, 1961.

(Physics--Thermodynamics, TT, v. 9, no. 12)

63-13425

I. Vukalovich, M. P.
II. Altunin, V. V.
III. Translations, New York

Office of Technical Services

Hydraulic Resistance With Surface Boiling of
Water, by P. G. Poletavkin.

RUSSIAN, per, Teplotoenergetika, No 12, 1959,
p 13-18.

DSIR LLU RTS 1513

Sci - Engr

Det 60

128,724

Heat Exchange in the Supercritical Regions
During the Flow of Piped Carbonic Acid and
Water, by Ye. A. Krasnoshchekov,
V. S. Protopov.
RUSSIAN, per, Teploenergetika, Vol 6, No 12,
1959, pp 26-30.
NASA TT F-11,335

Sci-Chem
Jan 68

348,678

60-23005

Levin, Ya. A.
STUDY OF COOLING OF TURBINE BLADES BY AN
AIR-WATER MIXTURE (Izucheniye Okhlazhdeniya
Turbinnykh Lopatok Vozdushnovodnyanoy Smes'yu).
15 Feb 60 [8]p. Trafford Park trans. 2771; M 1561.
Order from I.C. or SLA m\$1.80, ph\$1.80 60-23005

Trans. of Teploenergetika (USSR) 1959 [v. 6] no. 12,
p. 43-46.

External cooling of the rotor blades of turbines with
an air-water mixture makes it possible, in principle,
to ensure normal operating conditions at any tempera-
ture. The thermal stresses in the disc of the turbine
rotor wheel may also be reduced. Operating experi-
ence of steam turbines shows that a substantial de-
struction of the inlet edges of blades, made from
readily available materials, is observed at a high de-
gree of steam wetness (more than 10 - 12%) during the
course of many thousands of hours of operation. With
a relative water consumption of 0.2 - 1% of the gas

- I. Turbine blades--Cooling
2. Gas turbines--Design
- I. Levin, Ya. A.
- II. M 1561
- III. DEIR 111 U M. 1561
- IV. Associated Electrical
Industries, Ltd.
(Gt. Brit.)

147,029

Office of Technical Services

Dumov, V. I. and Peshkin, M. A.
STUDY OF CAVITATION IN THE IMPELLER OF A
CENTRIFUGAL PUMP (Issledovaniye Kavitatsii v
Koleoye Tsentrobezhnogo Nasosa). Jan 61 [15]p.

3 refs. RTS 1737.

Order from LC or SLA mi\$2.40, ph\$3.30 61-15626

Trans. of Teploenergetika (USSR) 1959, v. 6, no. 12,
p. 46-51.

The results are presented of a study of the cavitation
phenomenon in the impeller of a centrifugal pump,
and recommendations are given for improving the anti-
cavitation properties of pumps. (Author)

(Machinery--Machine Parts, TT, v. 5, no. 8)

61-15626

1. Impellers--Cavitation

2. Centrifugal pumps--
Cavitation

I. Dumov, V. I.

II. Peshkin, M. A.

III. RTS-1737

IV. Department of Scientific
and Industrial Research
(Gt. Brit.)

15165

Office of Technical Services

Heat Power Engineering. Part I, 178 pp.

Teploenergetika,

RUSSIAN, bk. / Vypusk I, Ak Nauk SSSR, Energeticheskoy
Inst imeni G. M. Krzhizhanovskogo, 1959.

AEC Tr-4496

Sci - Engr

Feb 62

182, 493

Investigation of the Operation of a Natural-
Gas Fired TP-170 Boiler With Feedwater of Varying
Temperature, by G. M. Polyakov, et al.

RUSSIAN, per, Teploenergetika, No 12, 1959,
pp 51-55.

DSIR LMD RTS 1611

Sci - Engr

128,753

Oct 60

Electrodynamical Properties of Ordinary and
Superconducting Media, by V. A. Kirillin, P. A. Golovinskiy.

ISSN, per. Voprosy teoret. fiz., No 12, 1959,
17-23.

HLA RTG 2036

Ed. - Chern

Aug 62

207,556

Steam Quality in Supercritical-pressure,
Once-Through Boilers with Different Feed-
water Composition, by M. A. Styrikovich,
et al.

RUSSIAN, per, Teploenergetika, 1960, Vol 7,
No 1, pp 30-33.

NLL 9022.09 1964 (3633) (On Loan)

Aug65

287,172

Reduced Coefficients of Frictional Resistance
for the Flow of Steam-Water Mixtures in Tubes,
by N. I. Semenov, B. I. Sheminin.

RUSSIAN, per, Teploenergetika, No 1, 1960,
pp 33-37.

DSIR LLU RTS 1600

Sci - Engr

Oct 60

130,717

C.E. EXPERIENCE IN THE PRESERVATION OF STANDBY
Trans. BOILERS IN THE 'MOSENERGO' POWER STATIONS
5025 L.A. Chernova and A.V. Aseeva
Teploenergetika, Vol. 7, pp. 51-54
(Feb. 1960)
(Spic Code: S3, 18 Dec. 1970)

Vukalovich, M. P., Dzampov, B. V., and
Zubarev, V. N.

TABLES OF THERMO-PHYSICAL PROPERTIES OF
AMMONIA (Tablitsy Teplofizicheskikh Svoistv
Ammiaka). Mar 62 [13]p. 15 refs. RTS 2037.
Order from OTS or SLA \$1.60 62-24370

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 1,
p. 63-69.

DESCRIPTORS: *Ammonia, Physical properties,
Numerical analysis, Equations of state, Specific heat,
Viscosity, Thermodynamics

Experimental and calculated data relating to thermo-
dynamic and thermo-physical properties of NH_3 are
treated by numerical and graphical methods. The re-
sults of this treatment are presented in the form of
detailed tables of the properties of ammonia. (Author)
(Physics--Thermodynamics, TT, v. 8, no. 7)

62-24370

- I. Vukalovich, M. P.
- II. Dzampov, B. V.
- III. Zubarev, V. N.
- IV. RTS-2037
- V. National Lending Library
for Science and
Technology (Gr. Brit.)

Office of Technical Services

Tsoderberg, N. V. and Morozova, N. A.
THERMAL CONDUCTIVITY OF GASEOUS CARBON
DIOXIDE AT PRESSURES FROM 1 TO 200 KG/CM²
AND TEMPERATURES TO 1200°C (Teploprovodnost
Ugledinogo Gaze pri Davleniyakh ot 1 do 200 kg/cm²
i Temperature do 1200°C). [1960] 15p. 22 refs.
(4 figs. 4 tables omitted) M 1804.
Order from I.C. or S.L.A. at \$2.40, plus \$3.30 61-13132

Trans. of Teploenergetika (USSR) 1960 (v. 7) no. 1,
p. 75-79.

A formula for calculating thermal conductivity is
derived.

(Physics--Thermodynamics, TT, v. 5, no. 5)

61-13132

- I. Carbon dioxide--Thermo-
dynamic properties
- I. Tsoderberg, N. V.
- II. Morozova, N. A.
- III. DSR LLU M. 1804

147,098

Office of Technical Services

Heat Emission With Spiral Motion of Liquid,
by E. P. Nami.

RUSSIAN, per, Teploenergetika, Vol VII, No 1,
1960, pp 85-87.

NLL M.4261

Sci - Phys

Apr 62

193,908

Deych, M. Ye., Zaryankin, A. Ye. and others.
METHOD OF INCREASING THE EFFICIENCY OF
TURBINE STAGES WITH SHORT BLADES (Metod
Povysheniya K. P. D. Snizheniya Turbin s Malymi
Vysotami Lopatok) tr. by D. R. H. Phillips. 29 Apr 60.
16p. (includes foreign text, 4 refs. not translated)
Trafford Park trans. no. 2816; M2000.
Order from LC or SLA m\$2.40. ph\$3.30 61-13527

Trans. of Teploenergetika (USSR), 1960 [v. 7] no. 2,
p. 18-24.

146,943

(Machinery--Engines, TT, v. 5, no. 5)

61-13527

1. Turbines--Performance
2. Turbine blades--
Aerodynamic
characteristics
- I. Deych, M. Ye.
- II. Zaryankin, A. Ye.
- III. AEI TP/T-2816
- IV. DSIR LLU M. 2000
- V. Associated Electrical
Industries, Ltd.
(Gr. Brit.)

Office of Technical Services

Corrosion of Boiler Tubes Subjected to Temperature
Changes, by D. Ya. Kagan, L. S. Zhuravlev.

RUSSIAN, per, Teploenergetika, No 2, 1960,
pp 60-66.

DSIR LLU RTS 1602

Sci + Chem, Engr

Oct 60

130,719

Table of Thermo-Physical Properties of Steam, by
N. A. Vukobratovich, et al.

TEPLOENERGETIKA, No 1, 1960,
p. 53-59.

MLL KTS 2037

801 - 802

47, 52

207, 208

The Thermodynamic Principles of the Construction
of Energy Diagrams for Steam-Gas Mixtures, by
G. I. Mikhailov et al.

NE-1416, part, Topoenergetika, No 1, 1960,
pp. 1-11.

MLL RTS 2038

Sci - Engr

Aug 68

207, 1960

An Investigation of Burnout During the Flow of
Saturated Water Through Small-Diameter Tubes at
High Pressures, by P. L. Pavlov and S. P. Semenov,
15 pp.

Submitted, Thermoelectricity, Vol. VII, No. 1,
1960, pp. 79-95. 92072/5

AEC TR-5602

and 6 pp.

232,224

img 63

Some Design Solutions for Important Sections of
High Powered Turbine Installations With Super-
Critical Steam Parameters, by L. A. Shubenko-
Shubin.

RUSSIAN, per, Teploenergetika, Vol VII, No 2, 1960,
pp 3-12.

MLL M. 3571

Sci - Engr

207,772

Jul 62

**Analysis of the Effect of Operating Conditions
on the Amount of Incompletely Burned Carbon
(q_1) in Furnace Chambers, by S. I. Shagalova,
L. M. Aruf'ev.**

**RUSSIAN, per, ~~Enslavement~~, Vol 7, No 2,
1960, pp 41-47.
(Rus 1313)
CMB 4149**

314,393

**Sci - Mechanical, Industrial,
Civil, and Marine Engineering
Nov 66**

Analysis of the Effect of Operating Conditions on the Amount of Incompletely Burnt Carbon (q₄) in Furnace Chambers, by S. L. Shapalova, K. M. Aref'ev.

RUSSIAN, per, Teploenergotika, Vol 7, No 2, 1960, pp 41-47.

ILL Ref: 9622.09B 1966 (4149)

Sci-Mechanical Industrial Civil
Marine Engineering

309,570

The Thermal Properties of a 96% (by volume)
Solution of Ethyl Alcohol in Water, by M. P.
Voukhalovich, et al.

RUSSIAN, per, Teploenergetika, No 2, 1960,
pp 70-77.

NLL RTS 2039

Sci - Chem

Jul 62

204,845

A Method for the Simultaneous Determination of the Relationship Between A , λ and C of Thermal Insulation Materials and the Temperature, by I. I. Pereletov. RUSSIAN, per, Teploenergetika, Vol 7, No 2, 1960, pp 77-80.
NTC 69-10934-20M

Sci-Phys
May 69

382,727

Investigating Semiconductor Thermoelements,
by Yu. N. Malevskiy, A. S. Okhotin, 17 pp.

RUSSIAN, per, Termoenergetika, No 2, 1960,
pp 78-87. 9670297

FTD-MCL-916/1

164, 976

Sci. - Electron

Aug 61

Fundamental Problems of Preparing Feedwater
for Power Stations in the Current Septennial,
by P. G. Prokhorov, 16 pp.

RUSSIAN, per, Teploenergetika, No 3, 1960,
pp 3-8.

Dept of Interior
TC7 R57 No 41

Sci - Engr
Feb 63

2214-9

Investigation of Conditions of Formation of
Iron Oxide Deposits, by N. N. Mankina, 7 pp.

RUSSIAN, per, Teploenergetika, No 3, 1960,
pp 8-12.

Chem Trans Sv 2701

Dept of Interior
IC7 E57 No 46

Sci - Min/Mat

Feb 63

22, 416

Kostrikin, Yu. M., Golman, I. N., and Ivanova, V. A.
THE REMOVAL OF IRON FROM WATER BY MEANS
OF CELLULOSE (Obezhelezivaniye vody
Tsellyulozoy). Apr 61 [13]p. 8 refs. RTS 1666.
Order from CTS or SLA \$1.60 61-19794

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 3,
p. 13-17.

DESCRIPTORS: *Feed water, Iron, Separation,
*Water filters, *Cellulose, Effectiveness.

Experiments showed that filtration of boiler water
through waste bleached cellulose (treated with dilute
hydrochloric acid) can reduce the concentration of
iron to 0.01 or 0.02 mg/l regardless of the quality of
water admitted to the filter. (See also 59-15776 and
59-12553)

PTD 612-1056/1
25-479
(Engineering-Sanitation, TT, v. 6, no. 2)

61-19794

- I. Kostrikin, Yu. M.
- II. Golman, I. N.
- III. Ivanova, V. A.
- IV. RTS-1666
- V. Department of Scientific
and Industrial Research
(Gt. Brit.)

108595

Office of Technical Services

Rukovanyov, B. P.
SALT CONCENTRATORS USED WHEN MEASURING
THE SALT CONTENT OF STEAM (Primeneniye
Solektsentratorov pri izmerenii Soledozhizhania
Para) Jan 61 [11] p. 3 refs. RTS 1667.
Order from I.C. or SIA m/\$2.40, ph/\$3.30 61-15639

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 3,
p. 20-24.

The Mostofin salt gauges can be converted into devices
for measuring steam salt contents by fitting them with
salt concentrators. Experience with VTI type VoF salt
concentrators shows that they may be recommended as
additional fittings both to electrical salt gauges now in
use and to those under development. The VTI type VoF
salt concentrators, which work at atmospheric pres-
sure, are of simple design; relative enrichment is
satisfactorily steady, and can be determined at any
moment of time; they can be manufactured at power
station workshops. (Author)
(Engineering--Chemical, TT, v. 3, no. 8)

61-15639

- I. Salinometers--Applications
2. Steam--Chemical analysis
- I. Rukovanyov, B. P.
- II. RTS-1667
- III. Department of Scientific
and Industrial Research
(Gr. Brit.)

151659

Office of Technical Services

Semiconductor Thermoelements, by Yu. N. Malevskiy,
A. S. Okhotin,

RUSSIAN, ^{5K} ~~per~~, Akademiya Nauk SSSR, Teploenergetika,
Sbornik, Ispolzovaniye Solnechnoy Energii, 1960,
pp 78-88.

*ATIC MCL-916/1

Sci - Phys

Apr 61

C-711

Voukalovich, M. P., Dzampov, B. V. and others.
**PROPRIETES THERMIQUES DE L'EAU SOUS DES
PRESSIONS ATTEIGNANT 1200 kg/cm² ET A DES
TEMPERATURES ATTEIGNANT 300°C** [Thermal
Properties of Water at Pressures of up to 1200
kg/cm² and Temperatures of up to 300°C] tr. by
B. de Tretzinsky, 15 Oct 61 [13]p. (cf refs CEA
Trans. no. R141) (text in French)
Order from OTS or SLA \$1.60 61-13825

Trans. in French of Teploenergetika (USSR) 1960,
v. 7, no. 4, p. 4-12.
A trans. in English is available from OTS or SLA,
\$1.60 as 61-14567 [1961] 13p.

DESCRIPTORS: *Water, Thermodynamics, Tables,
Pressure, Temperature.

(Physics--Thermodynamics, TT, v. 7, no. 5)

62-13825

- I. Voukalovich, M. P.
- II. Dzampov, B. V.
- III. CEA-tr-R1411
- IV. Commissariat à l'Energie
Atomique (France)

Office of Technical Services

Zalogin, N. G.

ON PROTECTING THE ATMOSPHERIC AIR AGAINST
POLLUTION BY THE FLUE GASES OF LARGE
POWER STATIONS. Jan 61 (7)p. 4 refs. RTS 1663.
Order from LC or SLA m/\$1.80, ph/\$1.80 61-15714

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 4,
p. 18-24.

A comparative evaluation is made of the ash and sulphur content of the power station fuels of the U. S. S. R. The existing industrial sanitation norms for the cleanliness of the atmospheric air are examined. An appraisal is made of the economic practicality of cleaning flue gases of sulphur dioxide by means of sulphur extraction plant, and of the dispersal of flue gases in the atmosphere with the aid of tall chimneys. (Author)

(Engineering--Sanitation, TT, v. 5, no. 8)

61-15714

1. Waste gases--Disposal
2. Air--Contamination
3. Power plants--USSR

1. Zalogin, N. G.

II. RTS-1663

III. Department of Scientific
and Industrial Research
(Gt. Brit.)

151660

Office of Technical Services

Stresses in the Flange Coupling of a Steam Line for
High Steam Parameters During Heating, by D. P.
Elizarov.

RUSSIAN, per, Teploenergetika, No 4, 1960, pp 33-38.

NLL M. 3323

Sci - Engr

191, 918

Apr 62

Investigation of the Corrosion Stability of
12 Kh 18 (Low-Alloy) Steel in Distilled Water
at 330° and 130 kg/cm², by V. V. Gerasimov.

RUSSIAN, per, Teploenergetika, No 4, 1960, pp 42-47

Dept of Interior
T07 E57 No 47

Encl - Mat & Mat

Apr 63

.72 9,232

Zenkevich, Yu. V.

THE FORMATION OF SALT DEPOSITS IN TUR-
BINES (O Protsessakh Obrazovaniya Solevykh
Etlozhennii v Turbinakh). Feb 61 [12]p. 2 refs.

RTS 1651.

Order from LC or SLA m/\$2.40, ph/\$3.30 61-15922

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 4,
p. 62-67.

This paper describes the basic processes leading to
the formation of salt deposits in high pressure tur-
bines and proposes a method for determining the
limiting steam quality. (Author)

(Metallurgy--Corrosion, TT, v. 5, no. 8)

61-15922

- I. Steam turbines--Corrosion
- I. Zenkevich, Yu. V.
- II. RTS-1651
- III. Department of Scientific
and Industrial Research
(Gt. Brit.)

151694

Office of Technical Services

The Equation of State for Liquid Helium
P. M. Heilmann.

RUSSIAN, per, Teploenergetika, No 4, 1960,
pp 72-73.

WILL THIS WORK

Sci. - Chem

Aug 62

207, 557

S-386/60

(NY-4051)

The Optimal Temperature of Regenerative Preheating
of Water at Nuclear Power Plants, by D. D. Kalafati,
21 pp.

RUSSIAN, per, Teploenergetika, No 4, 1960, pp 74-81.

JPRS 2845

Sci - Engr

Jul 60

120,062

Kato, Sh. N.

THE EFFECT OF ADDITIONAL AXIAL FORCES
UPON THE LONG-TIME STRENGTH OF BOILER
TUBES (Vliyaniye Dohavochnykh Osevykh Usilii na
Dlitel'nyu Prochnost' Kotel'nykh Trub). Jan 61 [10]p.
6 refs. RTS 1665.

Order from LC or SLA m\$1.80, ph\$1.80 61-15399

Tr. na. of Teploenergetika (USSR) 1960 [v. 7] no. 5,
p. 2-16.

An analysis is presented of results of previous tests,
reported by B. V. Zver'kov (Teploenergetika 5: no. 3,
51-54, 1958; available in translation from LC or SLA
as 60-23077), which were made to substantiate the
Soviet code for strength calculations of steam boiler
components.

(Engineering--Mechanical, TT, v. 5, no. 8)

61-15399

1. Boiler tubes--Stresses
2. Boiler tubes--Test results
- I. Kato, Sh. N.
- II. RTS-1665
- III. Department of Scientific
and Industrial Research
(Ox. Brit.)

151647

Office of Technical Services

Aizenstat, I. I.
AUTOMATIC CONTROL SYSTEM FOR A ONCE-
THROUGH BOILER WITH SCRUBBING AND SEPA-
RATING EQUIPMENT. [1961] [12]p. 5 refs. C. E.
Trans. 1831; [DSIR LLU] M. 3251.
Order from OTS or SLA \$1.60 61-27619

Trans. of Teploenergetika (USSR) 1960, v. 7, no. 5,
p. 19-24.

DESCRIPTORS: *Boilers, *Control systems, Tests,
Automatic.

Positive results of the continuous testing of an auto-
matic control system of the 7-2SP boiler for over a
year enable us to conclude that this system is reliable
and afford sufficiently good control of once-through
boilers with scrubbing and separating equipment both in
the case of internal and external agitation and also of
units comprising 2 boilers and a turbine. (Author)
(Engineering--Mechanical, TT, v. 6, no. 9)

61-27619

- I. Aizenstat, I. I.
- II. CE Trans-1831
- III. DSIR LLU M. 3251
- IV. Central Electricity
Generating Board
(Gt. Brit.)

185610

Office of Technical Services

Theory of the Long-Blade Turbine Stages;
the Radial Change of Parameters Before the
Nozzle and Purely Axial Exit Flow ($V_{2n} = 0$)
by A. M. Topunov.

RUSSIAN, per, Teploenergetika, Vol VII,
No 5, 1960, pp 27-32.

NLL M.4262

SLA 62-13127

193, 929

Sec - Rysa

Apr 62

Generalized Dependencies for Heat Emission
During Blistered Boiling of Liquids, by
D. A. Yablonsky, 16 pp.

tehnika
RUSSIAN, per, ~~Temperatura~~ Vol VII, No 5,
1960, pp 70-11. 9689972

DDC RSIC-101

Sci - Engg
Jan 64

248,549

Styrikovich, M. A., Miropol'skiy, Z. L.
and others.
THE EFFECT OF PRECEDING STEAM-CARRYING
ELEMENTS OF LOCAL BOILING IN STEAMING
TUBES (Vliy. ye Predvkiyuchennykh Elementov na
Vozniknoveniy. Krizisa Kipeniya v Parageneriro-
schikh Trubakh). Feb 61 [18]p. 8 refs. RTS 1685.
Order from LC or SLA ml\$2.40, ph\$3.30 61-15867

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 5,
p. 81-88. 9080654

A comparison is made of the experimental data ob-
tained by various investigators on the critical density
of heat fluxes during the boiling of water in tubes.
Results of tests are given which establish the effect
of the elastic properties of the medium contained in
the preceding volumes and of the size of these vol-
umes, upon the occurrence of local boiling in steam-
ing tubes. (Author)

(Physics--Thermodynamics, TT, v. 5, no. 8)

61-15867

1. Pipes--Thermodynamic properties
2. Boiling--Analysis
 - I. Styrikovich, M. A.
 - II. Miropol'skiy, Z. L.
 - III. RTS-1685
 - IV. Department of Scientific and Industrial Research (Gt. Brit.)

151600

AEC - 4740

Office of Technical Services

Stefani, Ye. P.
ON CERTAIN PROBLEMS REGARDING THE AUTO-
MATION OF THERMAL POWER STATIONS. Oct 60
[12]p' RTS 1686.
Order from LC or SLA ml\$2.40, ph\$3.30 61-13497

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 6,
p. 3-7.

A brief review is given of the stage reached in the
automation of thermal power stations. Points are
raised with regard to the necessity for analyzing the
dynamic properties of plant units during the planning
stage and with regard to the employment of controlling
computers in power generation. (Author)

(Engineering--Mechanical, TT, v. 5, no. 4)

61-13497

I. Power plants--Control
systems

1. Stefani, Ye. P.

II. RTS-1686

III. Department of Scientific
and Industrial Research
(Ox. Brit.)

143,239

Office of Technical Services

ANALYSIS OF THE OPERATION OF PULVERIZER FANS, BY
V. P. OSOKIN.

RUSSIAN, PER, TEPLOENERGETIKA, VOL VII, NO 6, 1960,
PP 47-49.

NLL M. 6289

SCI - ENGR

OCT 62

214,720

Design Features of Large-Scale Water-Treatment
Plants for Power Stations With High Condensate
Loss, by A. A. Krupchitskiy.

RUSSIAN, per, Teploenergetika, Vol VII, No 6,
1960, pp 58-62.

MLL N. 3298

Sc1 - Engr

191, 911

Apr 62

Rational Cycles of Steam-Gas Plants,
by A. I. Andryushchenko, V. N. Lapehov.

RUSSIAN, per, Teploenergetika, Vol VII,
1960, pp 60-62.

CSIRO

Sci - Engr
Apr 62

191, 438

Some Problems of the Theory of Radiant Heat
Transfer in One-Dimensional Systems, by V. H.
Andryanov.

RUSSIAN, per, Teploenergetika, No 6, 1966,
pp 63-66.

NLL RTS 1801

Sol - Phys

177,509

Dec 61

Ornatelsky, A. P.

THE EFFECT OF TUBE LENGTH AND TUBE DIAMETER ON THE VALUE OF CRITICAL HEAT FLOW UNDER THE CONDITION OF FORCED CIRCULATION OF WATER HEATED TO LESS THAN THE SATURATION TEMPERATURE (Vliyaniye Dliny i Diametra Truby na Velichinu Kriticheskogo Teplovogo Potoka pri Vynuzhdenom Dvizhenii Vody, Nizkogretov do Temperatury Nasyshcheniya). Uct 60 (10)p. 11 refs. RTS 1687.

Order from LC or SLA m\$1.80, ph\$1.80 61-15007

Trans. M Teploenergetika (USSR) 1960 [v. 7] no. 6, p. 67-69.

The results are given of experiments on the effect of tube length (l) and diameter (d) on the critical heat flow (q_{cr}) under forced circulation of water heated to less than saturation temperature, and of the effect of large thermal loads. It was found that (1) an increase in l/d from 2 to between 8 and 10 causes a decrease in (Engineering-Mechanical, TT, v. 8, no. 9) (over)

61-15007

1. Heat transfer--Analysis
2. Feed-water--Heat transfer
3. Pipes--Heat transfer

1. Ornatelsky, A. P.

II. RTS-1687

III. Department of Scientific and Industrial Research (Q. Brit.)

151942

Office of Technical Services

Heat Transfer Resistance of Pipe Bundles Arranged in
Chequerboard Order and With Continuous ~~SPRAL~~ ~~SPRAL~~
Spiral Ribbing, by V. G. Pastovskiy, U. V. Petrovskiy,
5 pp.

RUSSIAN, For, Teploenerg, Vol VII, No 6, 1960,
pp 69-72.

ABC-TRG-Inf-Ser-22 301

ABC-TRG-Inf-Ser-22 301

Sci - Anal Sci

343649

Investigation of Contact Heat Exchange, by
Y. F. Gulyakov, E. A. Gamin, et al, 7 pp.

RUSSIAN, per, Teploobmeny, No 6, 1970,
pp 71-76, 9207219

ABO/ERG DRIC-222
280 (H)

DDC RSTC-117

Sol - Phys

96 71560 (77)

232, 230

May 63

Voukalovich, M. P. and Kirillin, V. A.
DEVELOPMENT OF HEAT-POWER ENGINEERING
OF THE U.S.S.R. AND THE PROBLEMS OF THER-
MODYNAMICS. [1961] 5p.
Order from OTS or SLA \$1.10

61-14566

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 7,
p. 3-4.

DESCRIPTORS: *Electric power production,
*Thermodynamics, USSR.

(Engineering--Electrical, TT, v. 6, no. 2)

61-14566

I. Voukalovich, M. P.
II. Kirillin, V. A.

W. L. D. 100004

100004

Office of Technical Services

Voukalovich, M. P., Dzampov, B. V. and others.
THERMAL PROPERTIES OF WATER AT PRESSURES
OF UP TO 1200 kg/cm² AND TEMPERATURES OF
UP TO 300°C. [1961] [13]p. 16 refs.
Order from OTS or SLA \$1.60

61-14567

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 7,
p. 4-12.

DESCRIPTORS: *Water, Thermodynamics, Tables.

(Physics--Thermodynam. en. TT, v. 6, no. 2)

61-14567

i. Voukalovich, M. P.
ii. Dzampov, B. V.

*Dept of Int
AC5 E57 no 14
NLL 17.4358*

CONFIDENTIAL

Office of Technical Services

CEA-tr-R-1411 Uncl.

PROPRIETES THERMIQUES DE L'EAU SOUS DES
PRESSIONS ATTEIGNANT 1200 kg/cm^2 ET A DES
TEMPERATURES ATTEIGNANT 300°C . (Thermal
Properties of Water under Pressures up to
 1200 kg/cm^2 and Temperatures up to 300°C).

M. P. Vukalovich, B. V. Dzampov, D. S.
Rasskazov, and S. A. Remizov. Translated
into French by B. de Trezvinsky from
Teploenergetika, 7: No. 7, 4-12(1960). 18p.

Chemistry; Translations MC-4

C-4 NP NSA Dep.(mc); \$1.60(fs), \$0.80(mf)
N-7 JCL or TS

01-14568

Vargaftik, N. B. and Tarzimanov, A. A.
EXPERIMENTAL INVESTIGATION OF THE THER-
MAL CONDUCTIVITY OF STEAM. [1961] [13]p.

8 refs.

Order from OTS or SLA \$1.60

61-14568

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 7,
p. 12-16.

DESCRIPTORS: *Steam, Conductivity, *Heat transfer
Thermodynamics.

Results are presented of experimental investigations
on thermal conductivity of steam at temperatures from
320° to 560°C and pressures from 5 to 500 kg/cm²
(Author)

(Physics--Thermodynamics, TT, v. 6, no. 2)

I. Vargaftik, N. B.
II. Tarzimanov, A. A.

A. A. Tarzimanov

107573

Office of Technical Services

CEA-tr-R-1436 Uncl.

ETUDE EXPERIMENTALE DE LA CONDUCTIVITE
THERMIQUE DE LA VAPEUR D'EAU. (Experimental
Study of the Thermal Conductivity of Steam).
N. B. Vargaftik and A. A. Tarzimanov.
Translated into French from Teploenergetika
7: No. 7, 12-16 (July 1960). 15p.

Engineering; Physics; Translations MC-34

C-34 NP NSA Dep.(mc); \$1.60(fs), \$0.50(mf)
JCL or OTS

N-4

Sirota, A. M., Maltsev, B. K., and Belyakova, P. E.
ABOUT MAXIMUM VALUES OF THE SPECIFIC
HEAT OF WATER C_p . [1961] [20]p. 20 refs.
Order from OTS or SLA \$1.60 61-14569

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 7,
p. 16-23.

DESCRIPTORS: Specific heat, *Water, Thermody-
namics.

(Physics--Thermodynamics, TT, v. 6, no. 2)

61-14569

I. Sirota, A. M.
II. Maltsev, B. K.
III. Belyakova, P. E.

NEL M 14569

104569

Sheindlin, A. E., Shpil'rein, E. B., and Sitachov,
V. V.

SPECIFIC HEAT C_p OF WATER AND STEAM ON
THE SATURATION LINE. [1961] [14] p. 21 refs
Order from OTS or SLA \$1.60 61-16855

Trans. of Teploenergetika (USSR) 1960 [v. 7] no. 7,
p. 23-27.

DESCRIPTORS: *Water, *Steam, Specific heat.

New values of the specific heat of dry, saturated steam
 C_p^s in the temperature interval 0° to 340°C are pre-
sented. For temperatures from 0 to 100°C these re-
sults are obtained for the first time, while for tempera-
tures higher than 170°C they are more accurate values
of the results obtained earlier (Teploenergetika 5:
no. 7, 13-17, 1958; available in translation from LC or
SLA as 61-15396). At the same time, the values of the
specific heat of water C_p on the saturation line are
(Physics--Thermodynamics, TT, v. 6, no. 8) (over)

61-16855

I. Sheindlin, A. E.
II. Shpil'rein, E. B.
III. Sitachov, V. V.

100114

Office of Technical Services

Air (Gas) Flow Vibrations in Tube Clusters
of Boiler Assemblies, by V. V. Solov'yev,
6 pp.

RUSSIAN, per, Teploenergetika, No 7, July
1960, pp. 32-34.

JPRS 30498

USSR

Sci-Engr

Jun 65

231,530

Quick-response heat Gage Organs, by

I. Ya. Zalkind, 8 pp.

RUSSIAN, per. Teploenergetika, Vol 7, No 7,
1960.

Dept of Commerce

Nat Bureau of Standards

Sci-Mech Engr

Sep 68

367,275

Testing Ball Mills for Different Length of
Drum, by S. A. Kaganovich, K. Ya. Polferov.

RUSSTAN, per, Toploenergetika, Vol VII,
No 7, 1960, pp 44-51.

NIL M.4422

SLA 62-13114

Sol - Ingr

193,924

Apr 62

Treatment of Water With Hydrazine for the
Prevention of Corrosion of Steam Boilers, by
P. A. Akolzin, 14 pp.

RUSSIAN, par, Teploenergetika, No 7, 1960,
pp 59-64.

Dept of Interior
TC7 E57 No 49

Sol - Engr
Feb 63

221 410

1-1-63

The Elimination of Iron From Waters With the Use
of Cellulose, by Y. M. Kostrikin, I. N. Gofman,
V. A. Ivanova,

RUSSIAN, per, Teploenergetika, Vol XIII, No 7,
1960,

*ATIC MCL-1056/1-2

Sci - Min/Met, Chem

31 May 61

C-1029

Some Properties of ash Deposits on Screen Pipes
in Steam Boiler Furnaces, by A. M. Gurvich,
R. S. Prasolov.

RUSSIAN, per, Teploenergetika, No 7, 1960,
pp 80-86.

Dept of Interior
E TN7 E57 No 468

181,542

Sci M/M

Jan 62

(DC-4486).

Basic Trends and Tasks in the Development of Central
Heating in Prospect in 15-20 Years, by G. B.
Levental', L. A. Malent'yev, 13 pp.

RUSSIAN, per, Teploenergetika, No 8, 1960,
pp 3-8.

JPRS 6523

USSR

Econ

25 Jan 61

138,030

(DC-4486).

The Technical-Economic Indicators of Central
Heating in Moscow, by N. K. Gromov, A. P. Nemov,
17 pp.

RUSSIAN, per, Teploenergetika, No 8, 1960, pp 9-15.

JPRS 6523

USSR

Econ

25 Jan 61

138,031

(DC-4486).

Prospects of Development of Industrial Tets (Central
Electric Heating Plants) in High-Capacity Electric ~~Power~~
Power Systems, by A. N. Kuranov, 16 pp.

RUSSIAN, per, Teploenergetika, No 8, 1960, pp 15-21.

JPRS 6523

USSR

Econ

25 Jan 61

138,024

(DC-4486).

On the Problem of Possible Utilization of
Additional Electric Peak Capacity at Tets, by
A. F. Afanas'yev, M. M. Romin, 6 pp.

RUSSIAN, per, Teploenergetika, No 8, 1960, pp 21-23.

JPRS 6523

USSR
Econ
25 Jan 61

138,025